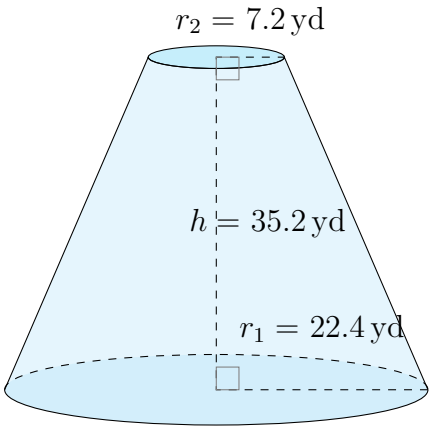
Surface Area and Volume of Conical Frustums (A)

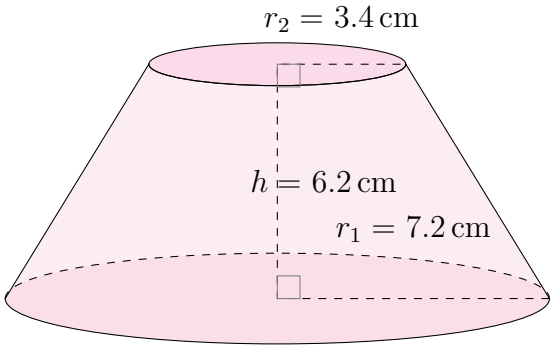
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

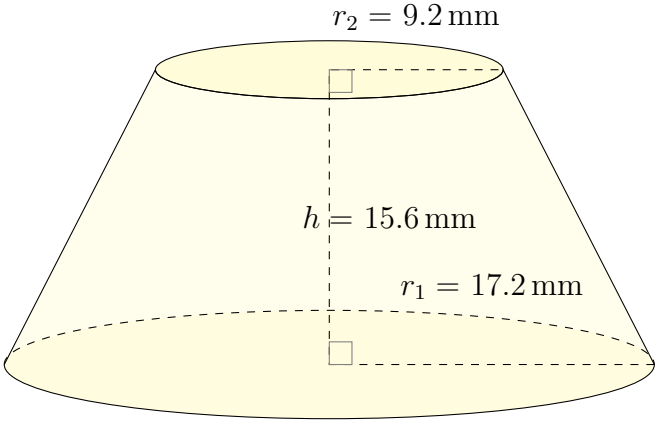
1.



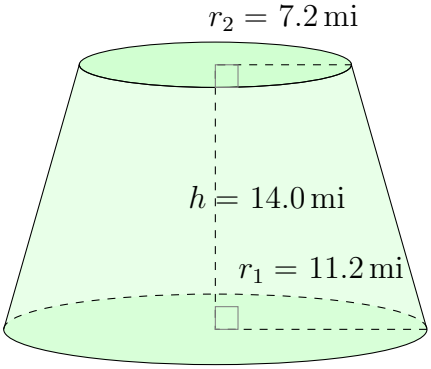
2.



3.



4.

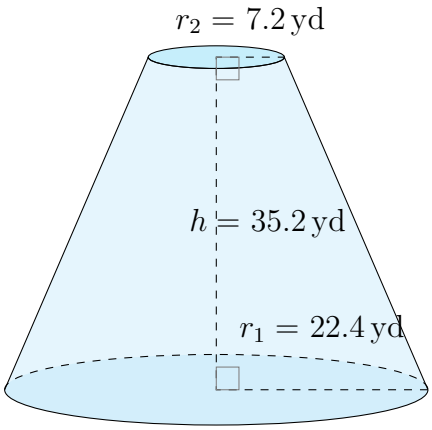


Surface Area and Volume of Conical Frustums (A) Answers

Calculate the surface area and volume for each conical frustum.

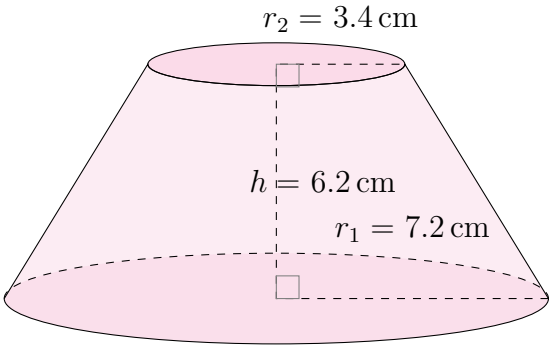
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



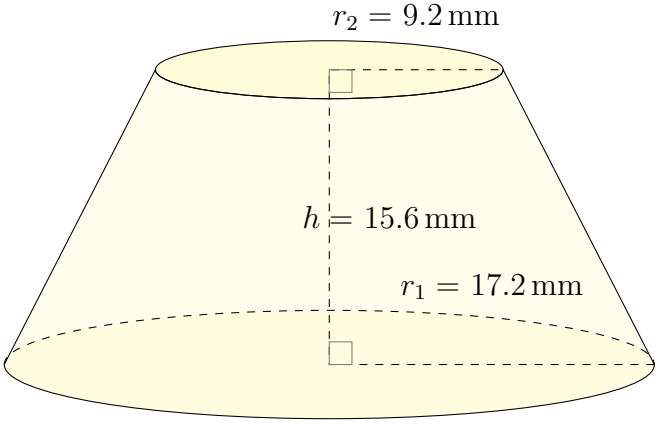
Surface Area: $5304.6\,\text{yd}^2$
Volume: $26{,}351.4\,\text{yd}^3$

2.



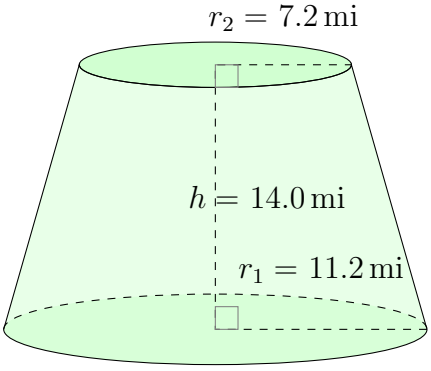
Surface Area: $441.3\,\text{cm}^2$
Volume: $570.6\,\text{cm}^3$

3.



Surface Area: $2649.4\,\text{mm}^2$
Volume: $8800.7\,\text{mm}^3$

4.



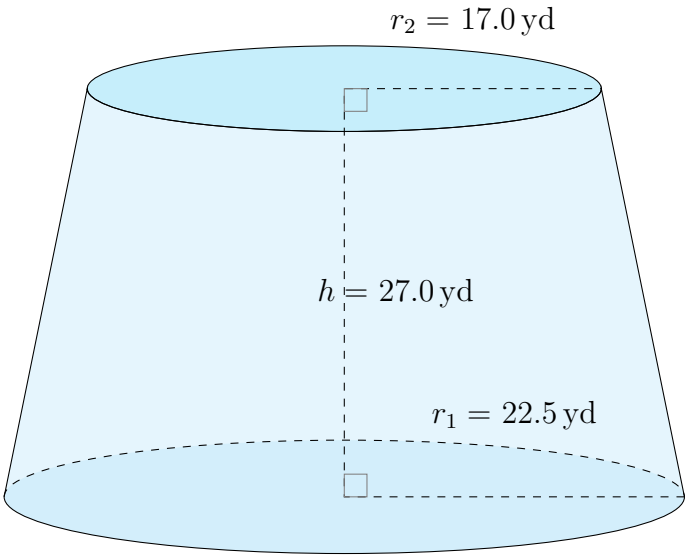
Surface Area: $1398.6\,\text{mi}^2$
Volume: $3781.3\,\text{mi}^3$

Surface Area and Volume of Conical Frustums (B)

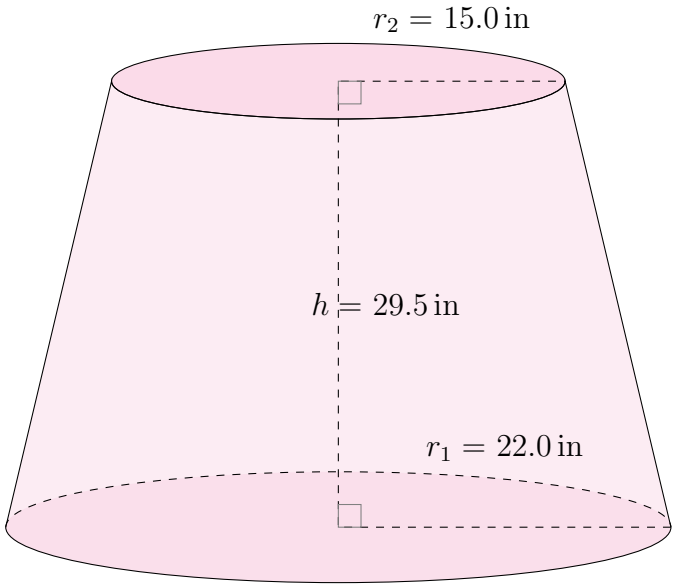
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

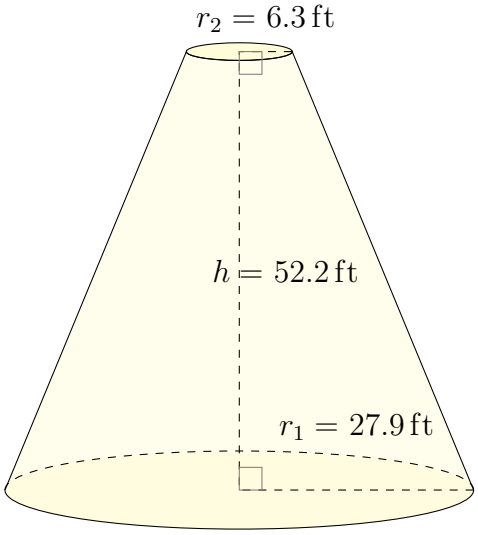
1.



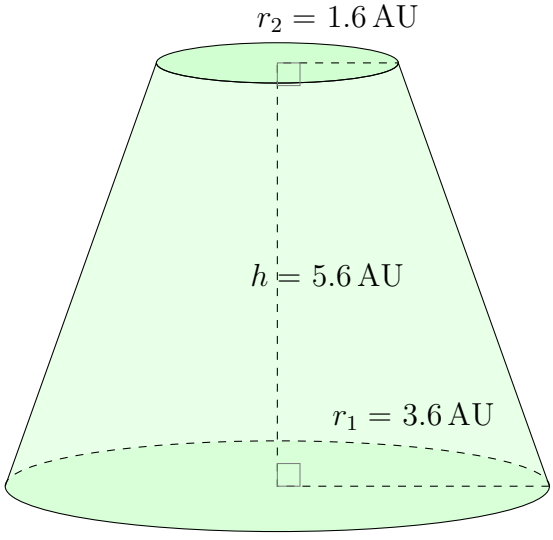
2.



3.



4.

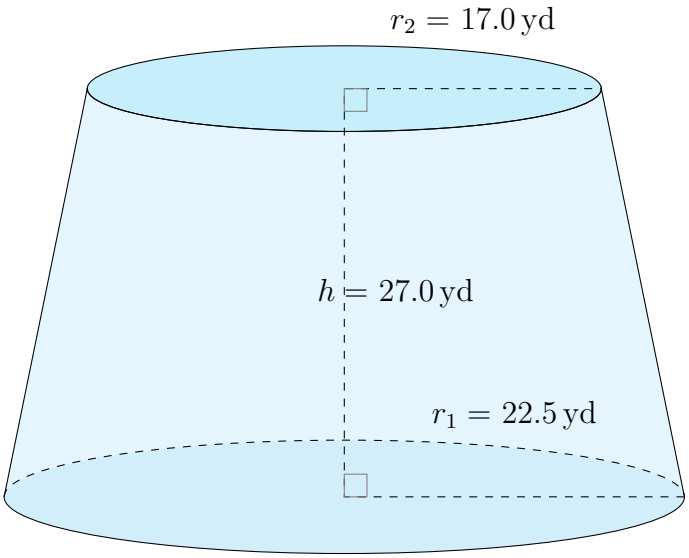


Surface Area and Volume of Conical Frustums (B) Answers

Calculate the surface area and volume for each conical frustum.

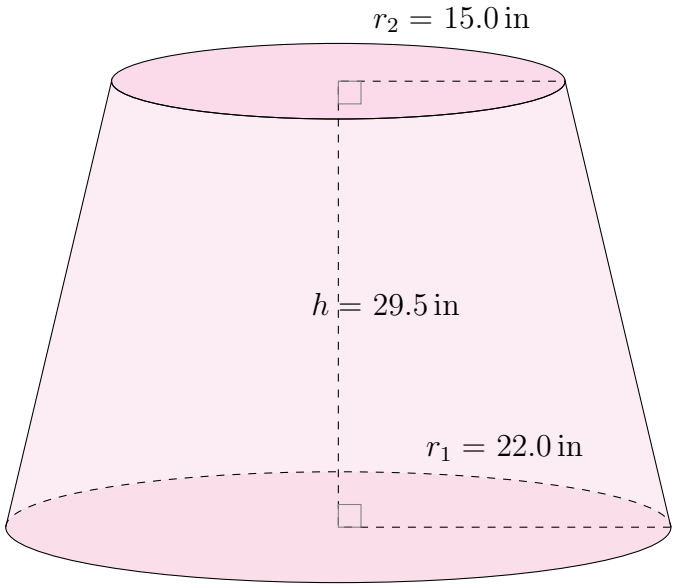
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



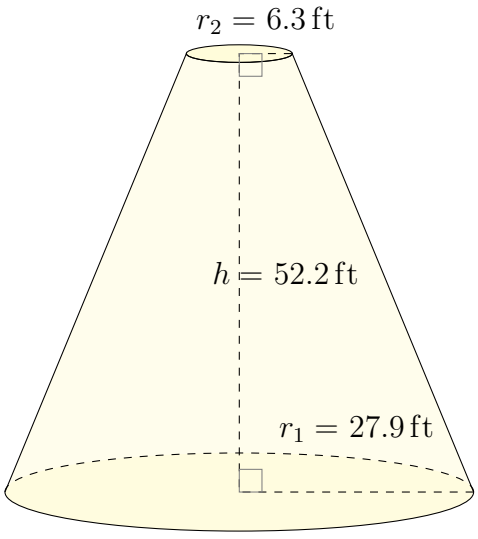
Surface Area: $5917.7\,\text{yd}^2$
Volume: $33{,}300.1\,\text{yd}^3$

2.



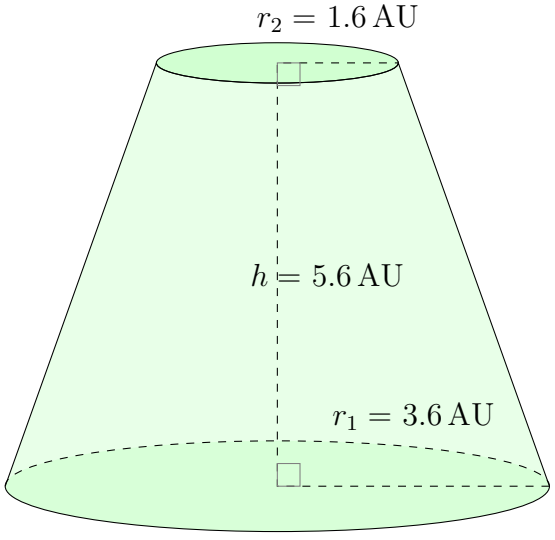
Surface Area: $5751.7\,\text{in}^2$
Volume: $32{,}097.1\,\text{in}^3$

3.



Surface Area: $8639.8\,\text{ft}^2$
Volume: $54{,}328.6\,\text{ft}^3$

4.



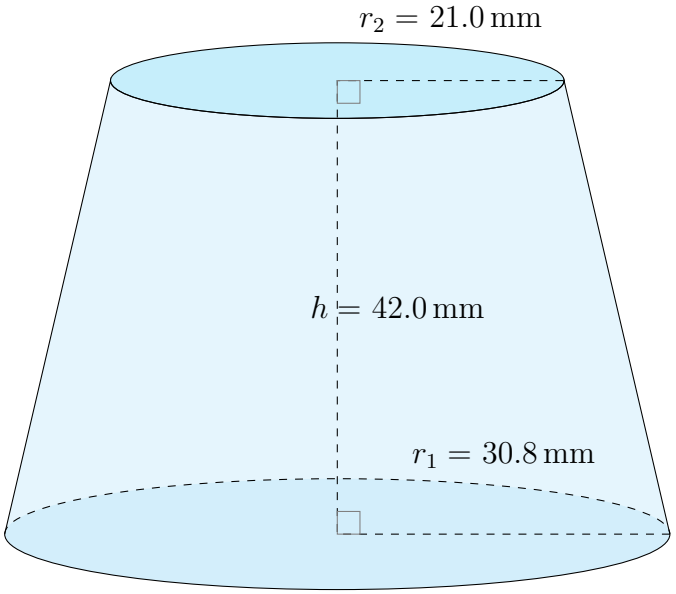
Surface Area: $145.9\,\text{AU}^2$
Volume: $124.8\,\text{AU}^3$

Surface Area and Volume of Conical Frustums (C)

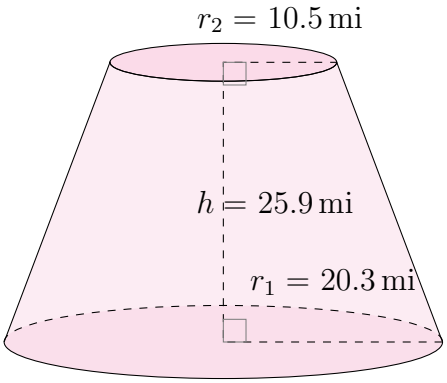
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

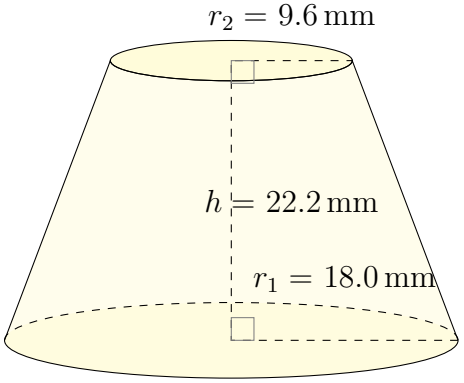
1.



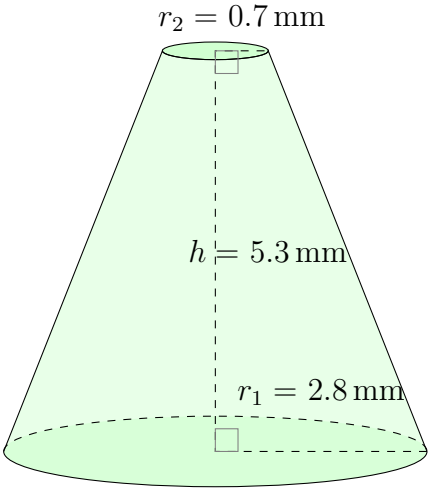
2.



3.



4.

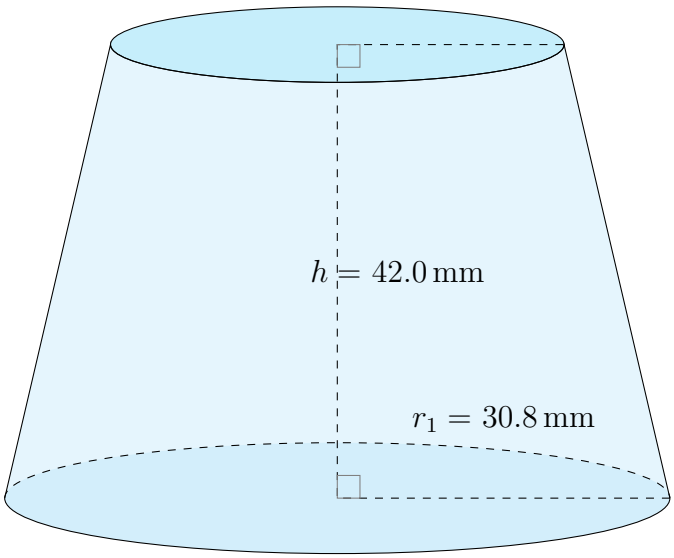


Surface Area and Volume of Conical Frustums (C) Answers

Calculate the surface area and volume for each conical frustum.

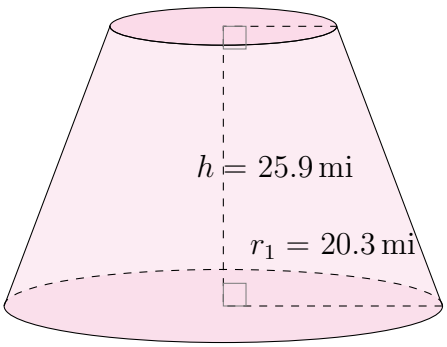
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



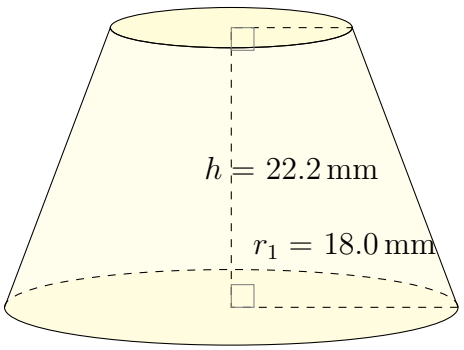
Surface Area: $11{,}384.1\,\text{mm}^2$
Volume: $89{,}567.3\,\text{mm}^3$

2.



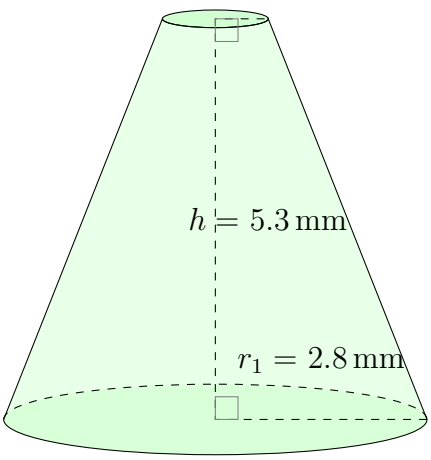
Surface Area: $4320.5\,\text{mi}^2$
Volume: $19{,}948.3\,\text{mi}^3$

3.



Surface Area: $3365.5\,\text{mm}^2$
Volume: $13{,}692.0\,\text{mm}^3$

4.



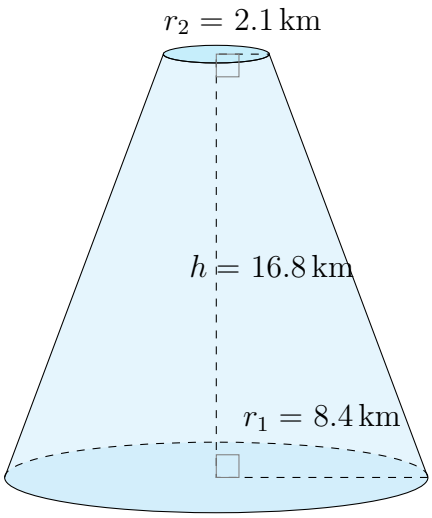
Surface Area: $88.9\,\text{mm}^2$
Volume: $57.1\,\text{mm}^3$

Surface Area and Volume of Conical Frustums (D)

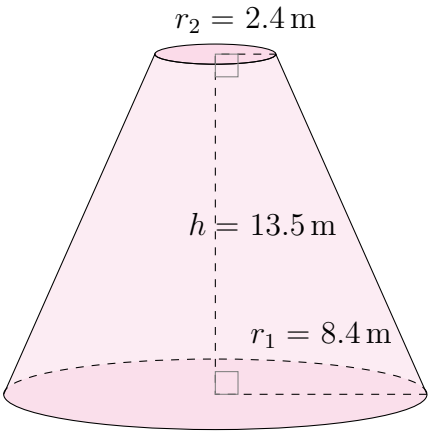
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

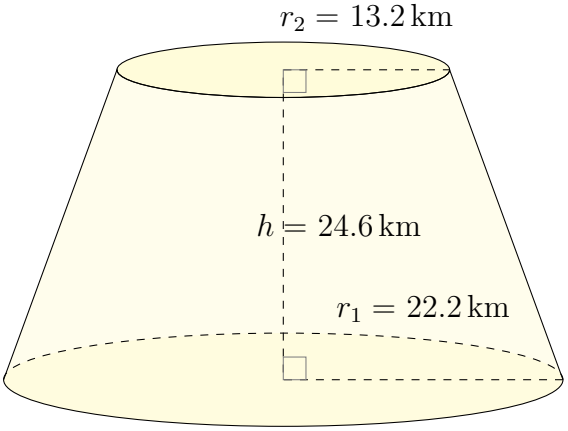
1.



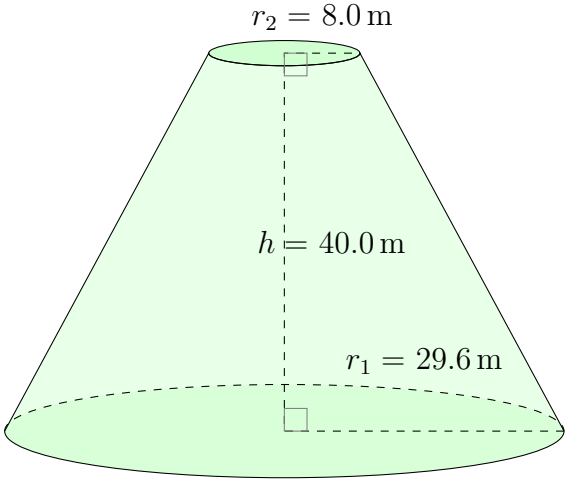
2.



3.



4.

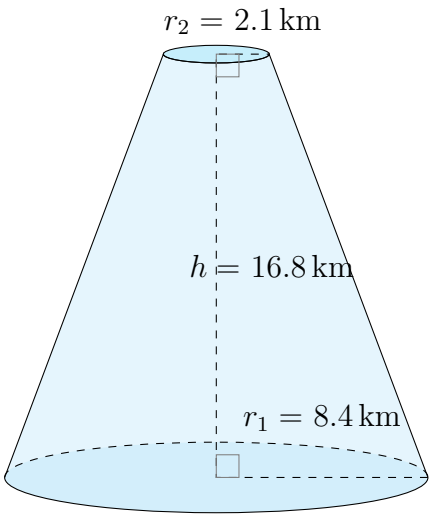


Surface Area and Volume of Conical Frustums (D) Answers

Calculate the surface area and volume for each conical frustum.

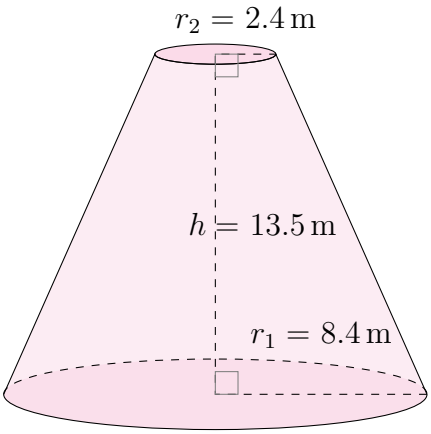
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



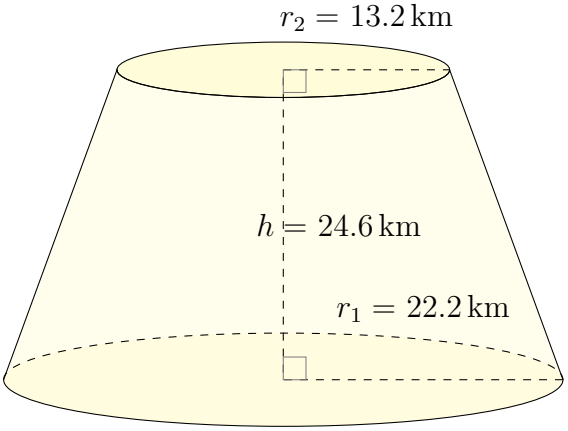
Surface Area: $827.4\,\text{km}^2$
Volume: $1629.3\,\text{km}^3$

2.



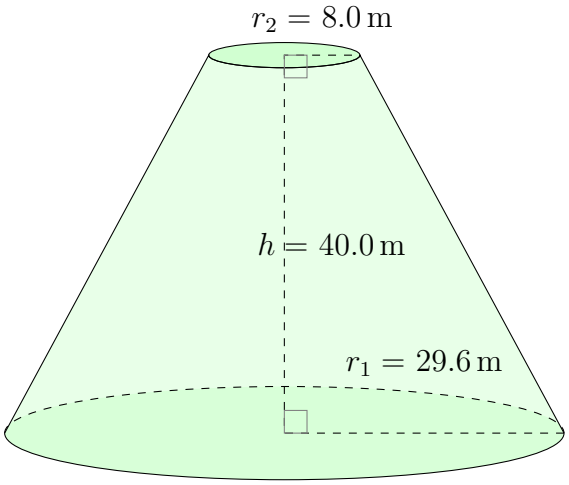
Surface Area: $741.0\,\text{m}^2$
Volume: $1364.0\,\text{m}^3$

3.



Surface Area: $5008.9\,\text{km}^2$
Volume: $24{,}733.7\,\text{km}^3$

4.



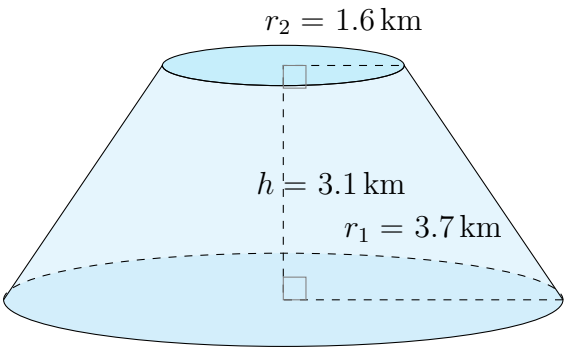
Surface Area: $8323.4\,\text{m}^2$
Volume: $49{,}300.4\,\text{m}^3$

Surface Area and Volume of Conical Frustums (E)

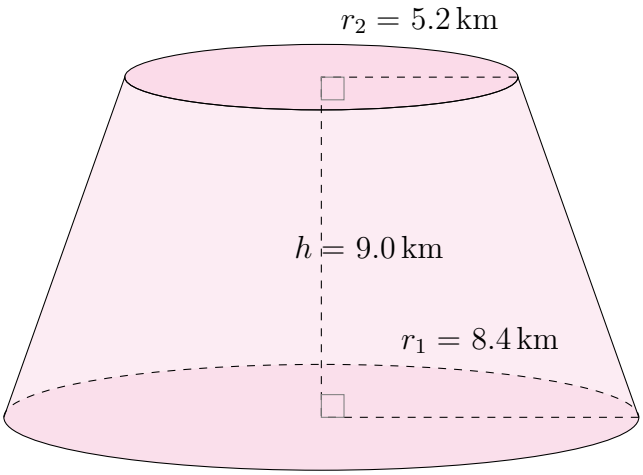
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

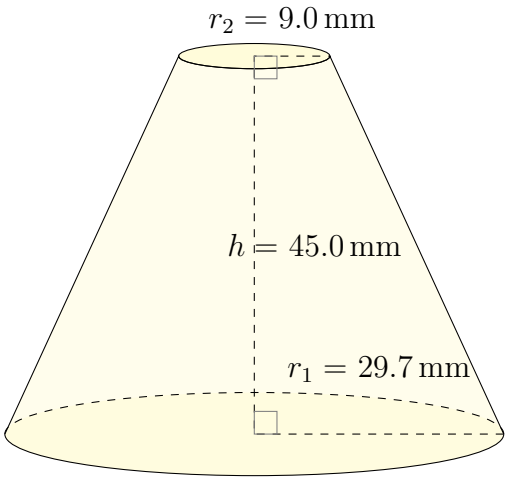
1.



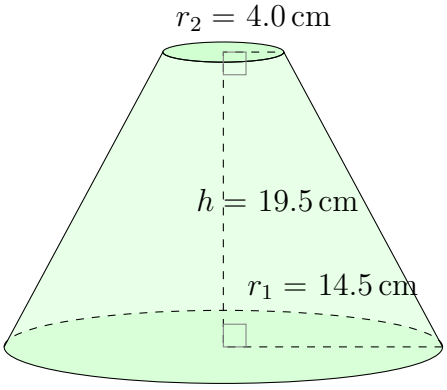
2.



3.



4.

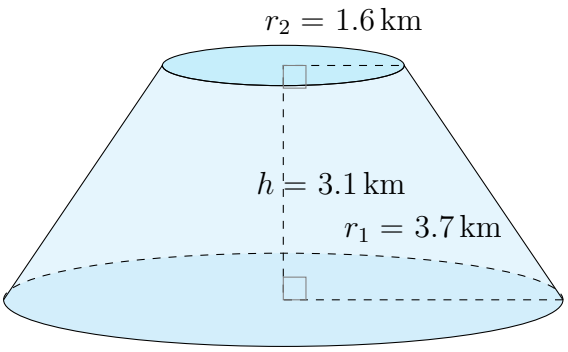


Surface Area and Volume of Conical Frustums (E) Answers

Calculate the surface area and volume for each conical frustum.

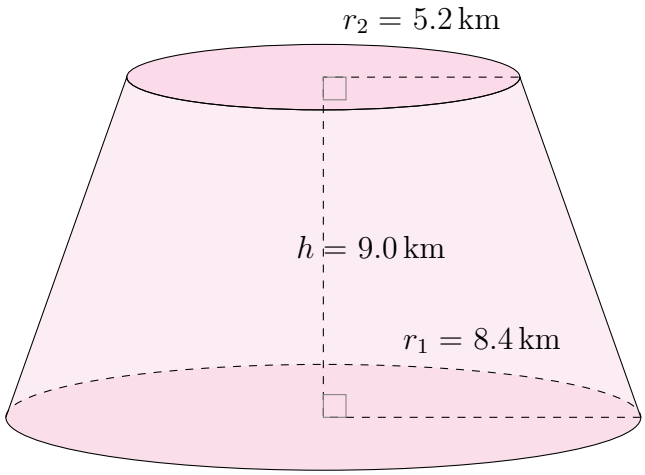
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



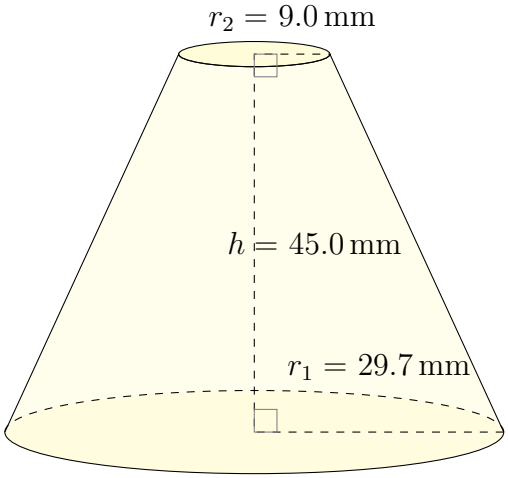
Surface Area: $113.4\,\text{km}^2$
Volume: $72.0\,\text{km}^3$

2.



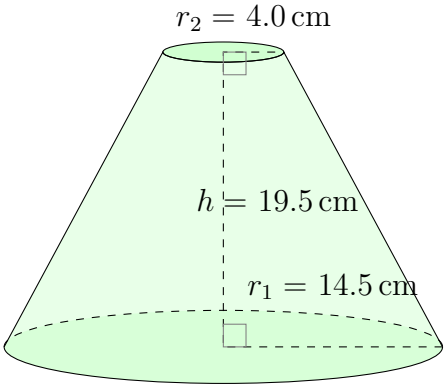
Surface Area: $714.7\,\text{km}^2$
Volume: $1331.5\,\text{km}^3$

3.



Surface Area: $9047.8\,\text{mm}^2$
Volume: $57{,}980.8\,\text{mm}^3$

4.



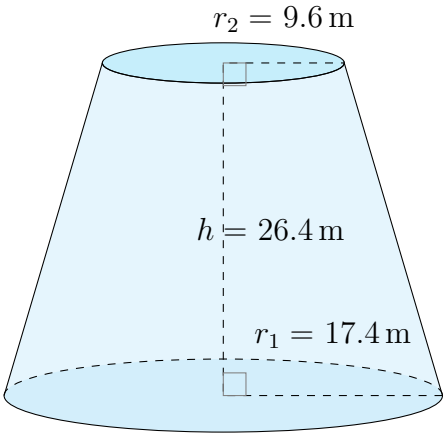
Surface Area: $1998.0\,\text{cm}^2$
Volume: $5804.5\,\text{cm}^3$

Surface Area and Volume of Conical Frustums (F)

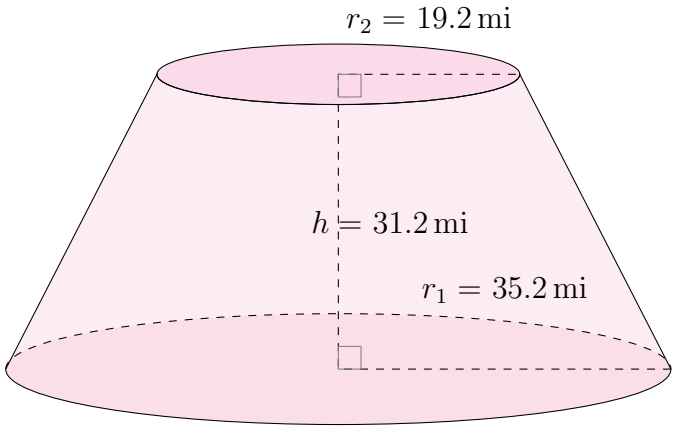
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

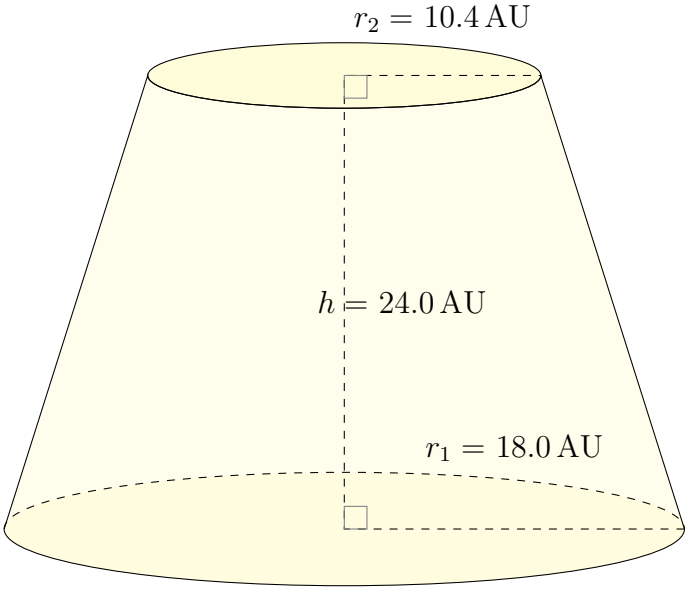
1.



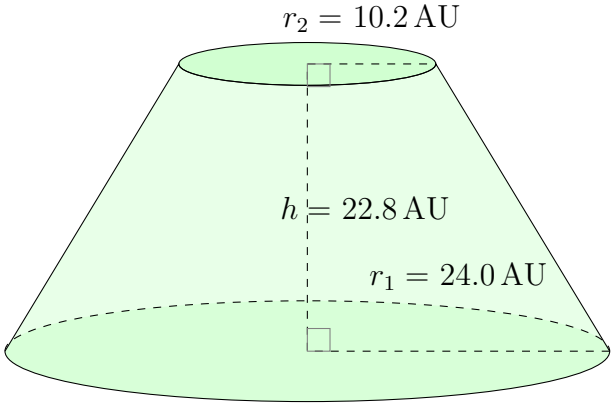
2.



3.



4.

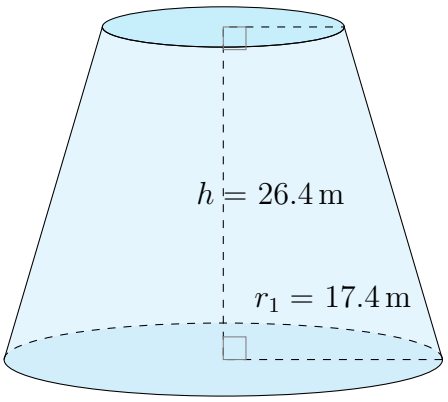


Surface Area and Volume of Conical Frustums (F) Answers

Calculate the surface area and volume for each conical frustum.

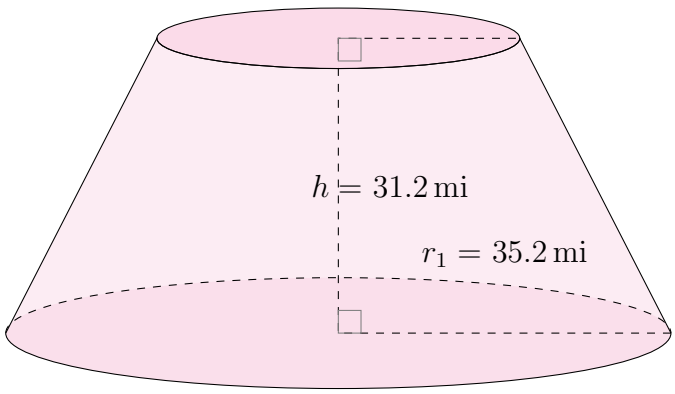
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



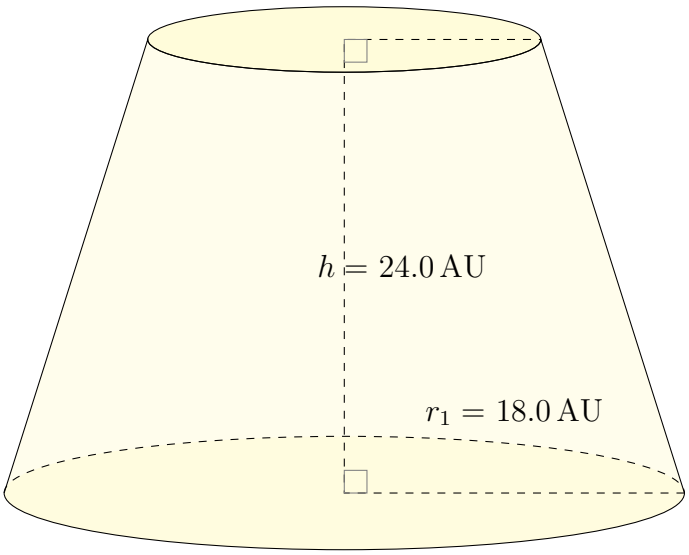
Surface Area: $3575.7\,\text{m}^2$
Volume: $15{,}536.0\,\text{m}^3$

2.



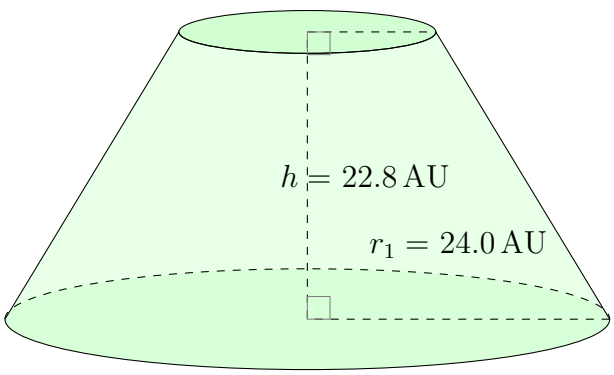
Surface Area: $11{,}043.1\,\text{mi}^2$
Volume: $74{,}608.5\,\text{mi}^3$

3.



Surface Area: $3603.8\,\text{AU}^2$
Volume: $15{,}566.2\,\text{AU}^3$

4.



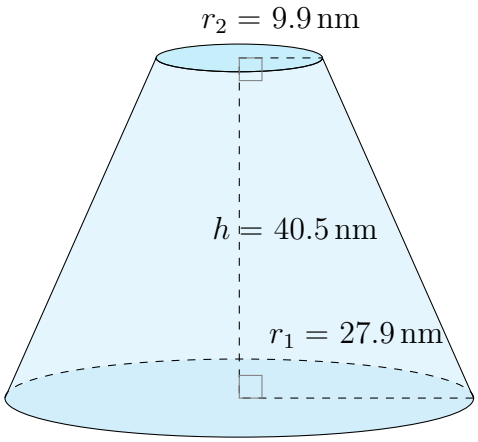
Surface Area: $4999.9\,\text{AU}^2$
Volume: $22{,}081.6\,\text{AU}^3$

Surface Area and Volume of Conical Frustums (G)

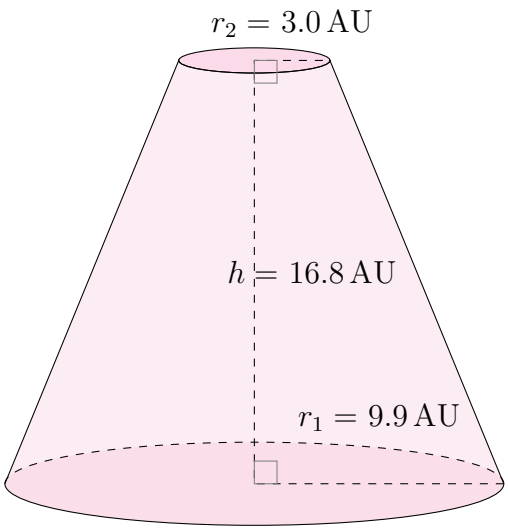
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

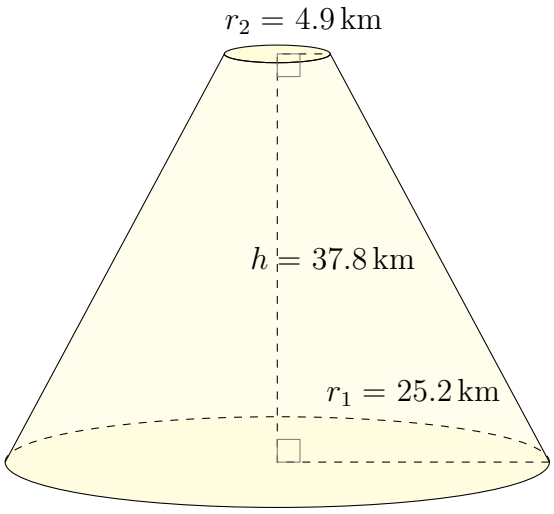
1.



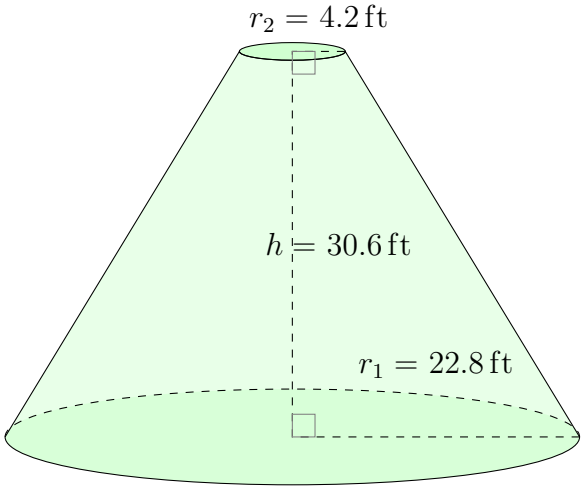
2.



3.



4.

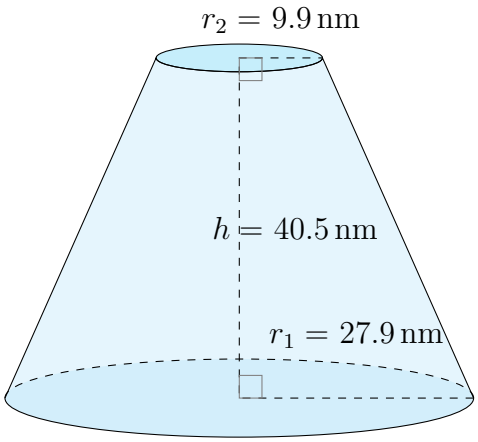


Surface Area and Volume of Conical Frustums (G) Answers

Calculate the surface area and volume for each conical frustum.

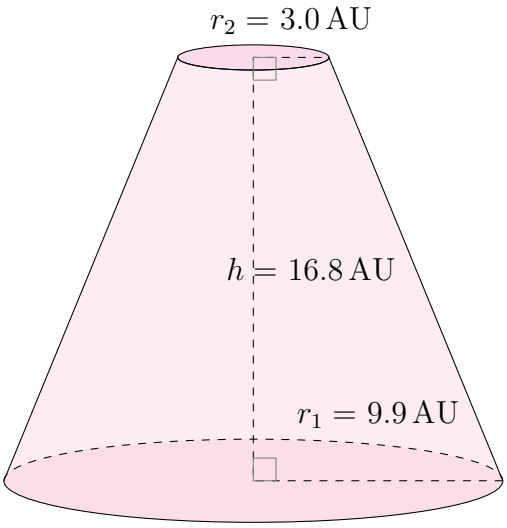
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



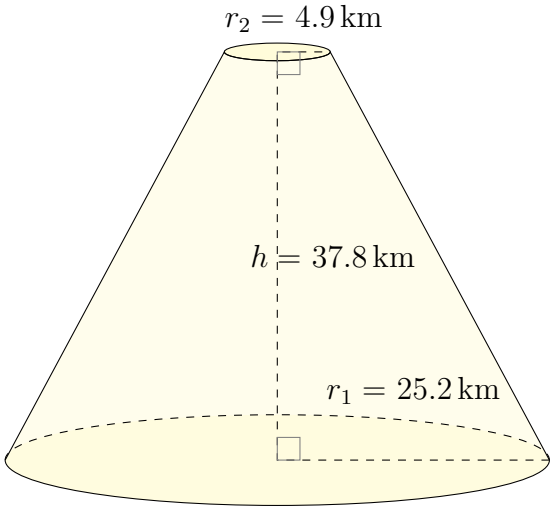
Surface Area: $8016.4\,\text{nm}^2$
Volume: $48{,}884.8\,\text{nm}^3$

2.



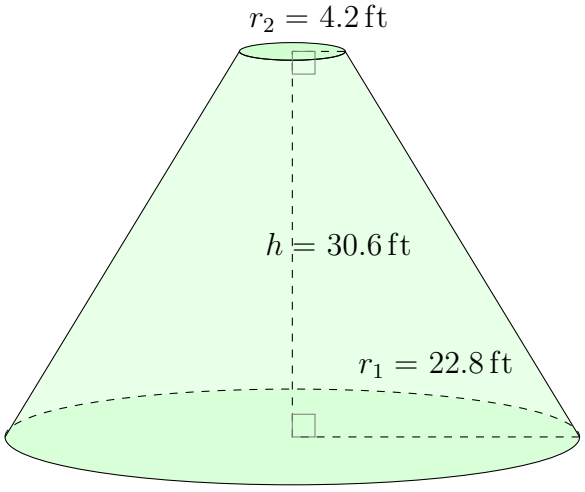
Surface Area: $1072.2\,\text{AU}^2$
Volume: $2405.1\,\text{AU}^3$

3.



Surface Area: $6127.7\,\text{km}^2$
Volume: $30{,}975.7\,\text{km}^3$

4.



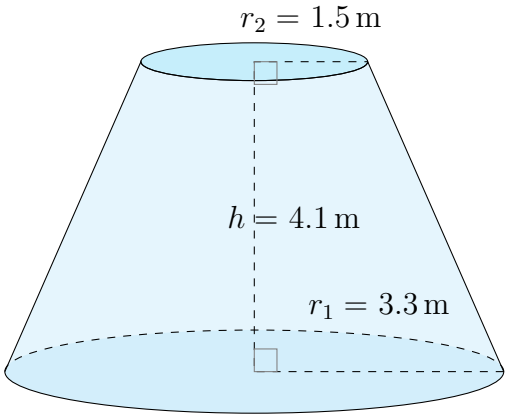
Surface Area: $4726.0\,\text{ft}^2$
Volume: $20{,}291.7\,\text{ft}^3$

Surface Area and Volume of Conical Frustums (H)

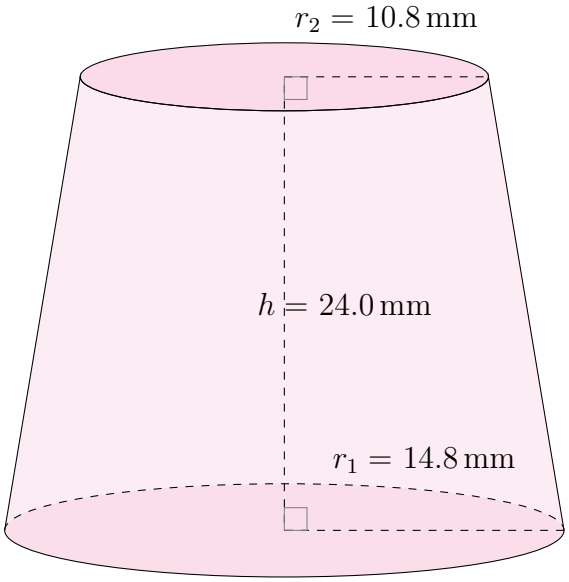
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

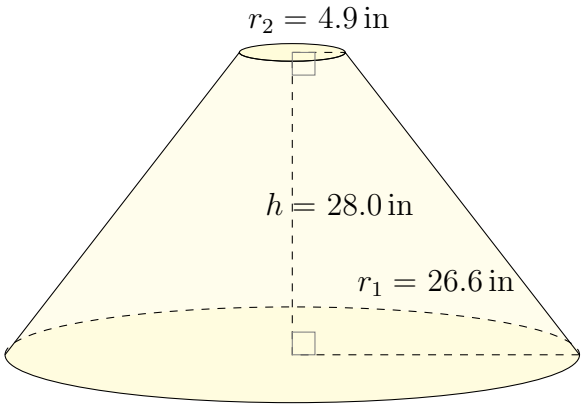
1.



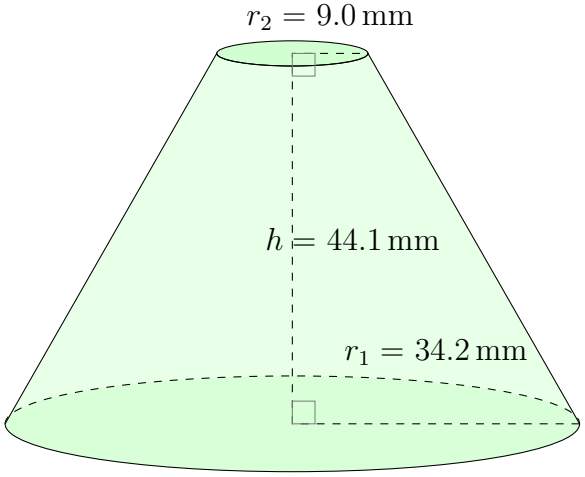
2.



3.



4.

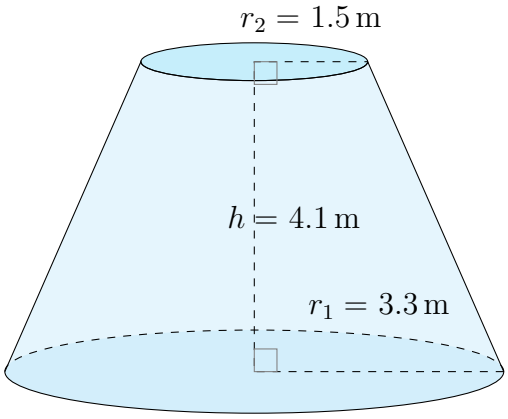


Surface Area and Volume of Conical Frustums (H) Answers

Calculate the surface area and volume for each conical frustum.

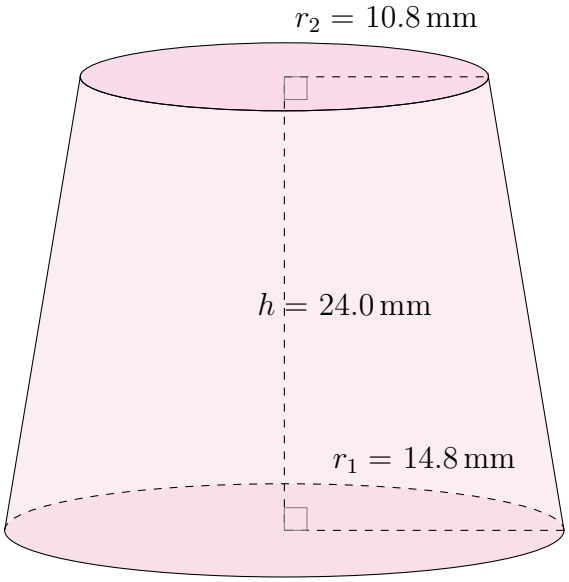
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



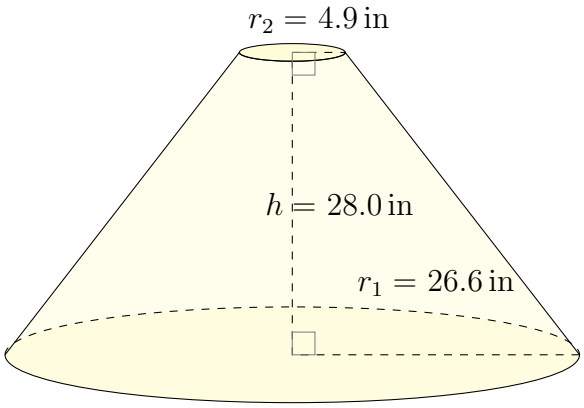
Surface Area: $108.8\,\text{m}^2$
Volume: $77.7\,\text{m}^3$

2.



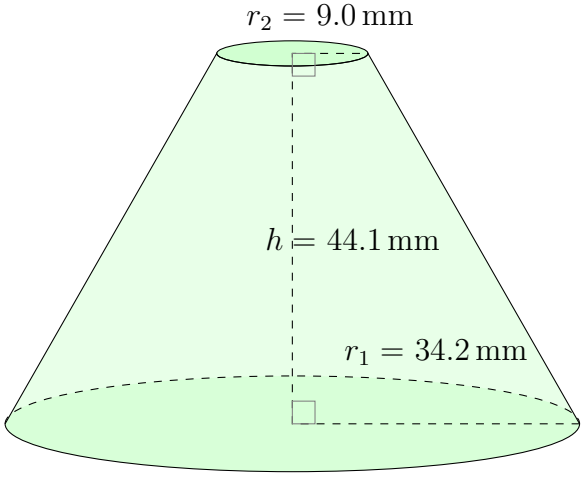
Surface Area: $3011.4\,\text{mm}^2$
Volume: $12{,}453.8\,\text{mm}^3$

3.



Surface Area: $5803.9\,\text{in}^2$
Volume: $25{,}272.5\,\text{in}^3$

4.



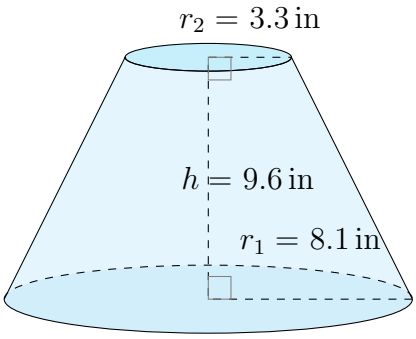
Surface Area: $10{,}822.4\,\text{mm}^2$
Volume: $71{,}971.0\,\text{mm}^3$

Surface Area and Volume of Conical Frustums (I)

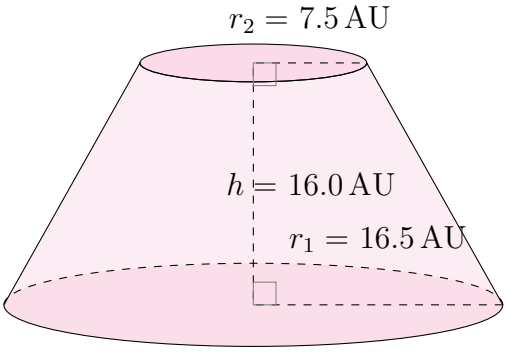
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

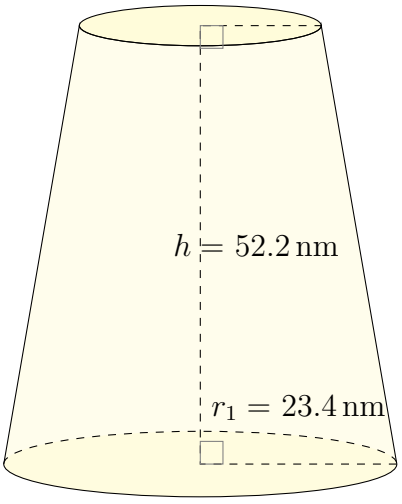
1.



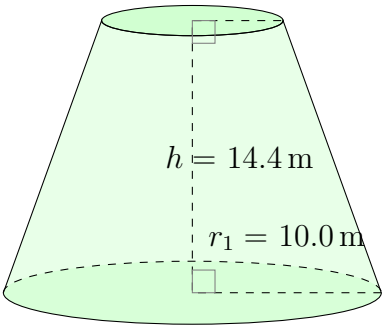
2.



3.



4.

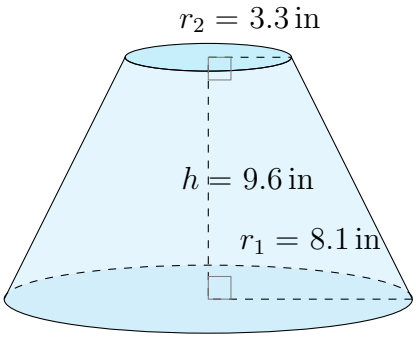


Surface Area and Volume of Conical Frustums (I) Answers

Calculate the surface area and volume for each conical frustum.

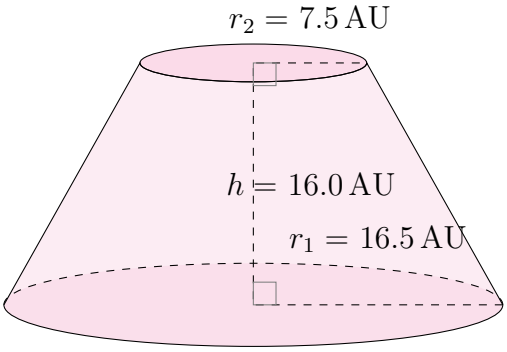
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



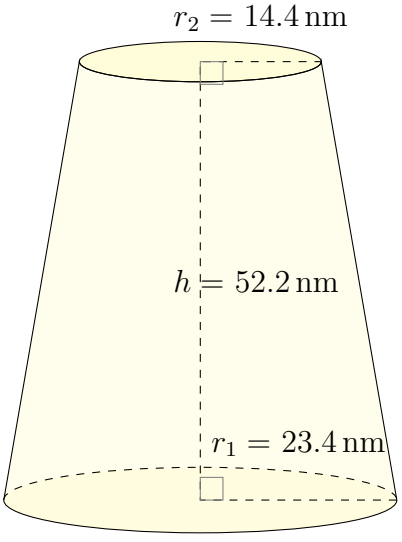
Surface Area: $624.7\,\text{in}^2$
Volume: $1037.8\,\text{in}^3$

2.



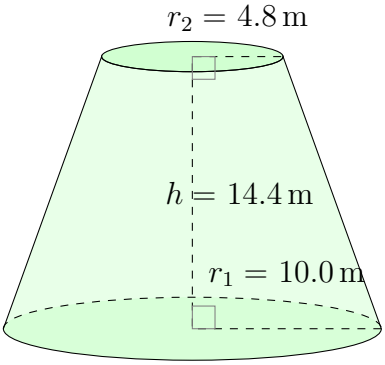
Surface Area: $2416.1\,\text{AU}^2$
Volume: $7577.5\,\text{AU}^3$

3.



Surface Area: $8662.0\,\text{nm}^2$
Volume: $59{,}686.2\,\text{nm}^3$

4.



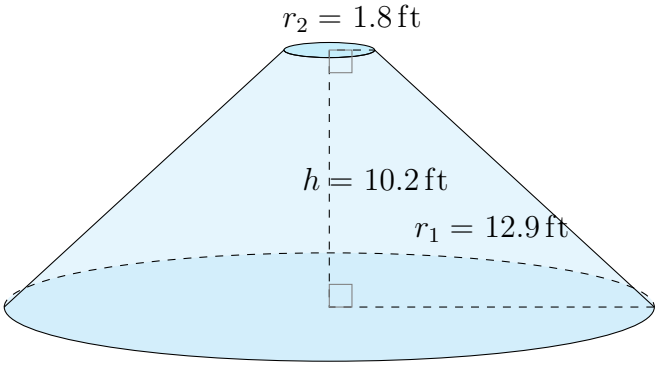
Surface Area: $1098.4\,\text{m}^2$
Volume: $2579.2\,\text{m}^3$

Surface Area and Volume of Conical Frustums (J)

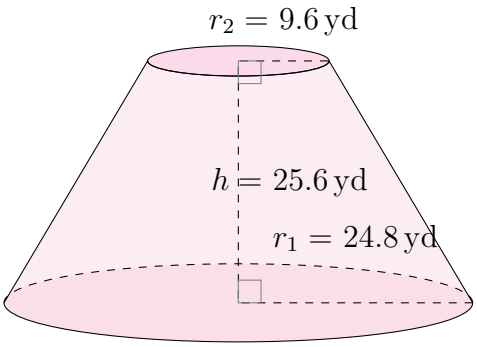
Calculate the surface area and volume for each conical frustum.

$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

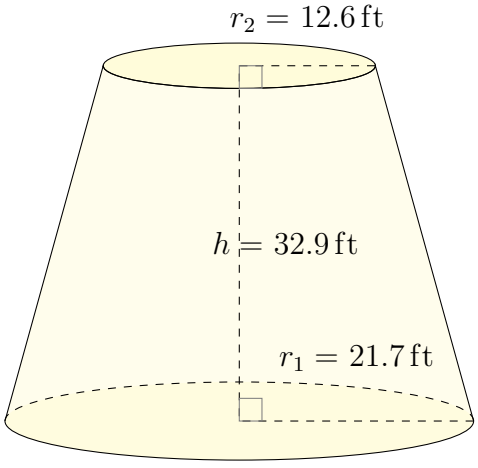
1.



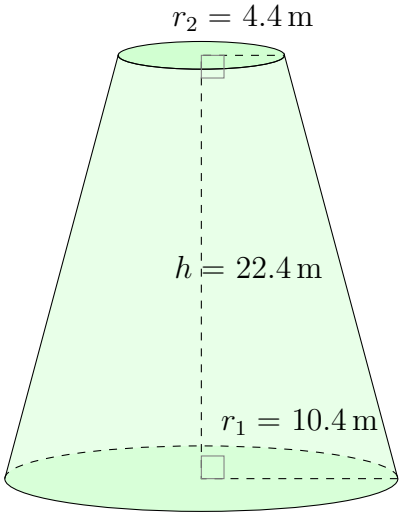
2.



3.



4.

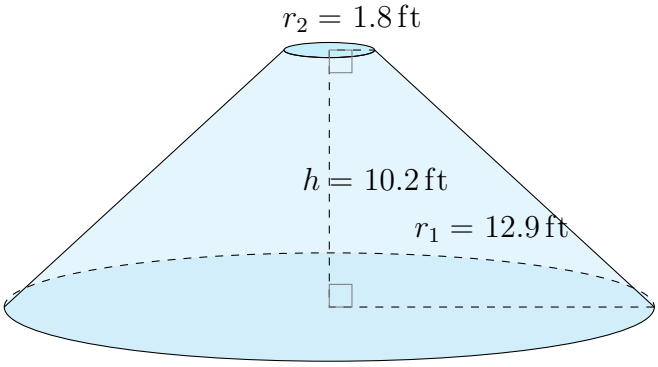


Surface Area and Volume of Conical Frustums (J) Answers

Calculate the surface area and volume for each conical frustum.

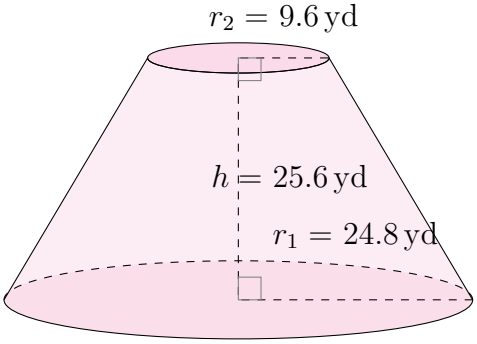
$$\text{Surface Area} = \pi(r_1 + r_2)\sqrt{(r_1 - r_2)^2 + h^2} + \pi {r_1}^2 + \pi {r_2}^2 \quad \text{Volume} = \frac{\pi}{3} h({r_1}^2 + {r_2}^2 + r_1 r_2)$$

1.



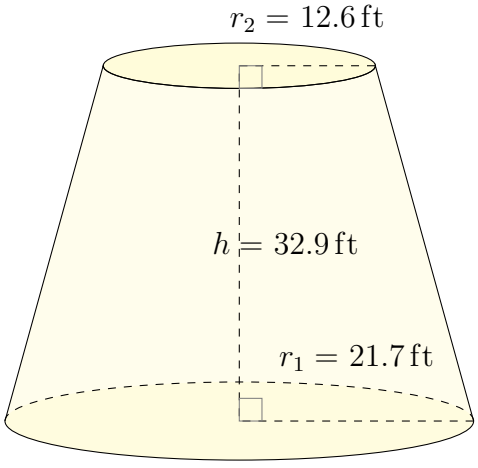
Surface Area: $1229.1\,\text{ft}^2$
Volume: $2060.1\,\text{ft}^3$

2.



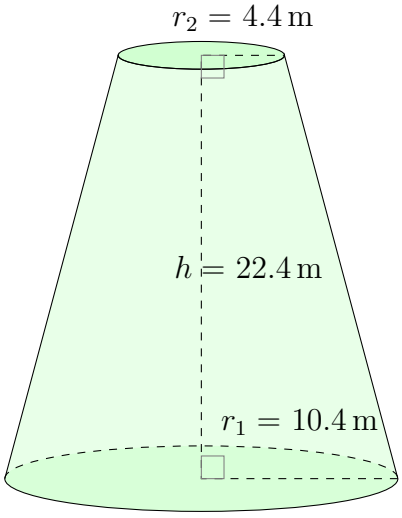
Surface Area: $5439.3\,\text{yd}^2$
Volume: $25{,}341.3\,\text{yd}^3$

3.



Surface Area: $5656.4\,\text{ft}^2$
Volume: $31{,}113.3\,\text{ft}^3$

4.



Surface Area: $1478.8\,\text{m}^2$
Volume: $4064.7\,\text{m}^3$